L1

(FILE 'HOME' ENTERED AT 17:09:21 ON 08 MAY 2002)

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FILE 'REGISTRY' ENTERED AT 17:09:28 ON 08 MAY 2002
STRUCTURE UPLOADED
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L2 23 S L1

L3 3340 S L1 FUL

FILE 'STNGUIDE' ENTERED AT 17:12:55 ON 08 MAY 2002

FILE 'REGISTRY' ENTERED AT 17:13:31 ON 08 MAY 2002

L4 STRUCTURE UPLOADED

L5 50 S L4 SAM SUB=L3

L6 2031 S L4 FUL SUB=L3

L7 1309 S L3 NOT L6

FILE 'STNGUIDE' ENTERED AT 17:18:36 ON 08 MAY 2002

FILE 'REGISTRY' ENTERED AT 17:21:46 ON 08 MAY 2002

L8 STRUCTURE UPLOADED

L9 46 S L8 SAM SUB=L7

L10 807 S L8 FUL SUB=L7

L11 STRUCTURE UPLOADED

L12 0 S L11

L13 1 S L11 FUL

L14 STRUCTURE UPLOADED

L15 24 S L14 SAM SUB=L10

L16 370 S L14 FUL SUB=L10

L17 STRUCTURE UPLOADED

L18 1309 S L7 SUB=L16 SAM L19 10 S L17 SAM SUB=L16

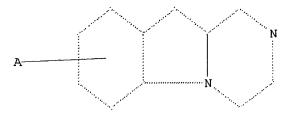
L21 156 S L13 OR L20

FILE 'CAPLUS' ENTERED AT 17:30:48 ON 08 MAY 2002 L22 24 S L21

=> d 11; d 14; d 18; d 111; d 114; d 117; d his

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

L4 HAS NO ANSWERS

L4 STR

Structure attributes must be viewed using STN Express query preparation.

L8 HAS NO ANSWERS L8 STR

Structure attributes must be viewed using STN Express query preparation.

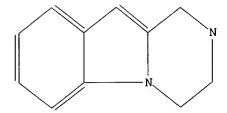
L11 HAS NO ANSWERS

L11 STR

Structure attributes must be viewed using STN Express query preparation.

L14 HAS NO ANSWERS

L14 STR



Structure attributes must be viewed using STN Express query preparation.

L17 HAS NO ANSWERS

L17 STR

G1 H,Cb,Ak

Structure attributes must be viewed using STN Express query preparation.

(FILE 'HOME' ENTERED AT 17:09:21 ON 08 MAY 2002)

FILE 'REGISTRY' ENTERED AT 17:09:28 ON 08 MAY 2002 STRUCTURE UPLOADED

L1 STRUC L2 23 S L1

L3 3340 S L1 FUL

FILE 'STNGUIDE' ENTERED AT 17:12:55 ON 08 MAY 2002

FILE 'REGISTRY' ENTERED AT 17:13:31 ON 08 MAY 2002

L4 STRUCTURE UPLOADED

L5 50 S L4 SAM SUB=L3

L6 2031 S L4 FUL SUB=L3

L7 1309 S L3 NOT L6

FILE 'STNGUIDE' ENTERED AT 17:18:36 ON 08 MAY 2002

FILE 'REGISTRY' ENTERED AT 17:21:46 ON 08 MAY 2002

L8 STRUCTURE UPLOADED

L9 46 S L8 SAM SUB=L7

L10 807 S L8 FUL SUB=L7

L11 STRUCTURE UPLOADED

L12	0 S L	11
L13	1 S L	l1 FUL
L14	STRU	JCTURE UPLOADED
L15	24 S L	14 SAM SUB=L10
L16	370 S L	14 FUL SUB=L10
L17	STRU	JCTURE UPLOADED
L18	1309 S L	7 SUB=L16 SAM
L19	10 S L	17 SAM SUB=L1 <u>6</u>
L20	155 S L	17 FUL SUB=L16
L21	156 S L3	13 OR L20

FILE 'CAPLUS' ENTERED AT 17:30:48 ON 08 MAY 2002 L22 24 S L21

=> fil caold

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
SINCE FILE TOTAL

CA SUBSCRIBER PRICE ENTRY SESSION -14.87 -14.87

FILE 'CAOLD' ENTERED AT 17:33:57 ON 08 MAY 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> s 121 L23 0 L21

=> log h

SINCE FILE COST IN U.S. DOLLARS TOTAL ENTRY SESSION 0.76 FULL ESTIMATED COST 531.67 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION 0.00 -14.87CA SUBSCRIBER PRICE

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 17:35:06 ON 08 MAY 2002

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ANSWER 1 OF 24 CAPLUS COPYRIGHT 2002 ACS
L22
     2002:107346 CAPLUS
ΑN
     136:167392
DN
     Preparation of 1,2,3,4,10,10a-hexahydro-1H-pyrazino[1,2-a]indoles and
ΤI
     analogs and 5-HT receptor agonists for treatment of CNS diseases,
     cardiovascular disorders, gastrointestinal disorders, and obesity
     Bentley, Jonathan Mark; Hebeisen, Paul; Muller, Marc; Richter, Hans;
IN
     Roever, Stephan; Mattei, Patrizio; Taylor, Sven
     F. Hoffmann-La Roche A.-G., Switz.; Vernalis Research Limited
PA
     PCT Int. Appl., 125 pp.
SO
     CODEN: PIXXD2
     Patent
DΤ
     English
LΑ
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                                                             DATE
PΙ
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                                           WO 2001-EP8520
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             VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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                            20020321
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PRAI EP 2000-116517
OS
     MARPAT 136:167392
GI
                                Br
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$$R^2$$
 R^3
 R^4
 R^7
 R^8
 R^5
 R^5
 R^6
 R^7
 R^8
 R^7
 R^8
 R^7
 R^8
 R^8
 R^9
 R^9

Title compds. I [wherein R1, R2, R3, and R4 = independently H, halo, AB hydroxy(alkyl), (cyclo)alkyl, ar(alk)yl, (halo)alkoxy(alkyl), haloalkyl, aryloxy, alkylcarbonyl, arylcarbonyl, alkylthio, arylthio, alkylsulfoxy, arylsulfoxy, alkylsulfonyl, arylsulfonyl, NO2, CN, alkoxycarbonyl, aryloxycarbonyl, (di)alkylaminocarbonyl, carboxy, heterocyclyl, (un) substituted amino, etc.; R5 = H or (cyclo) alkyl; R6 = H, (cyclo) alkyl, hydroxyalkyl, carbamoylalkyl, alkoxycarbonylalkyl, aryloxycarbonylalkyl, or (CH2)nA; R7 = H, (cyclo)alkyl, hydroxyalkyl, or alkoxyalkyl, with provisos; R8 = H or (cyclo)alkyl; A = heterocyclyl, cycloalkanoyl, or substituted cycloalkyl; n = 0-3; and their pharmaceutically usable salts, solvates, or esters] were prepd. and 5-HT receptor agonists. For example, (10aR)-9-bromo-1,2,3,4,10,10a-hexahydro-1H-pyrazino[1,2-a]indole and 2-oxazolidinone were dissolved in CH2Cl2. Formaldehyde was added and the soln. stirred for 3 h at room temp. to give (10aR)-II (82%). In serotonin receptor binding assays, the latter exhibited activity toward the 5-HT2C, 5-HT2B, and 5-HT2A receptors with Ki values of 26 nM, 110 nM and 230 nM, resp. I are useful as pharmaceutical prepns. for the treatment or prevention of disorders of the central nervous system, damage to the central nervous system, cardiovascular disorders, gastrointestinal

disorders, diabetes insipidus, obesity, and sleep apnea (no data).

396074-48-9P, 7-Chloro-4-methyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process) (intermediate; prepn. of pyrazinoindoles and analogs as 5-HT receptor agonists for treatment of CNS diseases, cardiovascular disorders, gastrointestinal disorders, and obesity)

RN 396074-48-9 CAPLUS
CN Pyrazino[1,2-a]indole, 7-chloro-1,2,3,4-tetrahydro-4-methyl- (9CI) (CA INDEX NAME)

IT 396074-39-8P, (4R)-7-Chloro-4-methyl-1,2,3,4tetrahydropyrazino[1,2-a]indole 396074-42-3P,
 (4S)-7-Chloro-4-methyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole
RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic
preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; prepn. of pyrazinoindoles and analogs as 5-HT receptor
 agonists for treatment of CNS diseases, cardiovascular disorders,
 gastrointestinal disorders, and obesity)
RN 396074-39-8 CAPLUS
CN Pyrazino[1,2-a]indole, 7-chloro-1,2,3,4-tetrahydro-4-methyl-, (4R)- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.

RN 396074-42-3 CAPLUS
CN Pyrazino[1,2-a]indole, 7-chloro-1,2,3,4-tetrahydro-4-methyl-, (4S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

IT 396074-44-5p, 9-Bromo-1,2,3,4-tetrahydropyrazino[1,2-a]indole
396074-54-7p, (R)-4-Methyl-7-trifluoromethyl-1,2,3,4tetrahydropyrazino[1,2-a]indole 396074-63-8p,
(R)-6-Ethyl-4-methyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole

```
396074-73-0p, (R)-7-Bromo-4-methyl-1,2,3,4-tetrahydropyrazino[1,2-
a]indole 396074-79-6P, (R)-9-Chloro-4-methyl-1,2,3,4-
tetrahydropyrazino[1,2-a]indole hydrochloride 396074-91-2P,
(R)-7-Chloro-8-fluoro-4-methyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole
396075-19-7P, 7-Bromo-4-ethyl-1,2,3,4-tetrahydropyrazino[1,2-
a]indole 396075-33-5P, (R)-4,6,10-Trimethyl-1,2,3,4-
tetrahydropyrazino[1,2-a]indole oxalate 396075-49-3P,
(R)-8-Fluoro-4-methyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole
396075-58-4P, (R)-7-Bromo-9-fluoro-4-methyl-1,2,3,4-
tetrahydropyrazino[1,2-a]indole 396075-62-0P,
(R)-6-Fluoro-4-methyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole
396075-76-6P, (R)-6-Bromo-4-methyl-1,2,3,4-tetrahydropyrazino[1,2-
a]indole hydrochloride 396075-78-8P, (R)-7-Fluoro-4,6-dimethyl-
1,2,3,4-tetrahydro-2H-pyrazino[1,2-a]indole 396075-84-6P,
(R)-7-Chloro-4,8-dimethyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole
396075-88-0P, (R)-4-Methyl-6-trifluoromethoxy-1,2,3,4-
tetrahydropyrazino[1,2-a]indole 396076-28-1P
396076-46-3P, (R)-8-Bromo-4,7-dimethyl-1,2,3,4-
tetrahydropyrazino[1,2-a]indole-2-carboxylic acid tert-butyl ester
396076-47-4P, (R)-8-Bromo-4,7-dimethyl-1,2,3,4-
tetrahydropyrazino[1,2-a]indole hydrochloride 396076-50-9P,
(R)-4,7-Dimethyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole-2-carboxylic acid
tert-butyl ester 396076-51-0P, (R)-4,7-Dimethyl-1,2,3,4-
tetrahydropyrazino[1,2-a]indole hydrochloride 396076-54-3P,
(R)-4,7,8-Trimethyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole-2-carboxylic
acid tert-butyl ester 396076-55-4P, (R)-4,7,8-Trimethyl-1,2,3,4-
tetrahydropyrazino[1,2-a]indole 396076-58-7P,
(R)-6,7-Dichloro-4-methyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole
hydrochloride 396076-68-9P, (R)-8-Bromo-7-fluoro-4-methyl-3,4-
dihydro-1H-pyrazino[1,2-a]indole-2-carboxylic acid tert-butyl ester
396076-69-0P, (R)-8-Bromo-7-fluoro-4-methyl-1,2,3,4-
tetrahydropyrazino[1,2-a]indole hydrochloride 396076-75-8P,
(R)-8-Fluoro-4,6-dimethyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole
hydrochloride 396076-85-0P, (R)-6-Bromo-4,7-dimethyl-1,2,3,4-
tetrahydropyrazino[1,2-a]indole 396076-91-8P,
(S)-(7-Trifluoromethyl-1,2,3,4-tetrahydropyrazino[1,2-a]indol-4-
yl)methanol
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (intermediate; prepn. of pyrazinoindoles and analogs as 5-HT receptor
   agonists for treatment of CNS diseases, cardiovascular disorders,
   gastrointestinal disorders, and obesity)
396074-44-5 CAPLUS
Pyrazino[1,2-a]indole, 9-bromo-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)
```

RN

CN

RN 396074-54-7 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-4-methyl-7-(trifluoromethyl)-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 396074-63-8 CAPLUS

CN Pyrazino[1,2-a]indole, 6-ethyl-1,2,3,4-tetrahydro-4-methyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396074-73-0 CAPLUS

CN Pyrazino[1,2-a]indole, 7-bromo-1,2,3,4-tetrahydro-4-methyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 396074-79-6 CAPLUS

CN Pyrazino[1,2-a]indole, 9-chloro-1,2,3,4-tetrahydro-4-methyl-, monohydrochloride, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

HCl

RN 396074-91-2 CAPLUS

CN Pyrazino[1,2-a]indole, 7-chloro-8-fluoro-1,2,3,4-tetrahydro-4-methyl-,

```
(4R) - (9CI) (CA INDEX NAME)
```

Absolute stereochemistry. Rotation (-).

RN 396075-19-7 CAPLUS
CN Pyrazino[1,2-a]indole, 7-bromo-4-ethyl-1,2,3,4-tetrahydro- (9CI) (CAINDEX NAME)

$$\begin{array}{c|c} & & NH \\ & & \\ Br & & \\ Et & & \end{array}$$

RN 396075-33-5 CAPLUS
CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-4,6,10-trimethyl-, (4R)-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 396075-32-4 CMF C14 H18 N2

Absolute stereochemistry.

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 396075-49-3 CAPLUS
CN Pyrazino[1,2-a]indole, 8-fluoro-1,2,3,4-tetrahydro-4-methyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396075-58-4 CAPLUS

CN Pyrazino[1,2-a]indole, 7-bromo-9-fluoro-1,2,3,4-tetrahydro-4-methyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396075-62-0 CAPLUS

CN Pyrazino[1,2-a]indole, 6-fluoro-1,2,3,4-tetrahydro-4-methyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396075-76-6 CAPLUS

CN Pyrazino[1,2-a]indole, 6-bromo-1,2,3,4-tetrahydro-4-methyl-, monohydrochloride, (4R)- (9CI) (CA INDEX NAME)

RN 396075-78-8 CAPLUS
CN Pyrazino[1,2-a]indole, 7-fluoro-1,2,3,4-tetrahydro-4,6-dimethyl-, (4R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396075-84-6 CAPLUS
CN Pyrazino[1,2-a]indole, 7-chloro-1,2,3,4-tetrahydro-4,8-dimethyl-, (4R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396075-88-0 CAPLUS CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-4-methyl-6-(trifluoromethoxy)-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396076-28-1 CAPLUS
CN 1H-Cyclopenta[g]pyrazino[1,2-a]indol-7(8H)-one, 2,3,9,10-tetrahydro-10methyl-, (10R)- (9CI) (CA INDEX NAME)

RN 396076-46-3 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-carboxylic acid, 8-bromo-3,4-dihydro-4,7-dimethyl-, 1,1-dimethylethyl ester, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396076-47-4 CAPLUS

CN Pyrazino[1,2-a]indole, 8-bromo-1,2,3,4-tetrahydro-4,7-dimethyl-, monohydrochloride, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 396076-50-9 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-carboxylic acid, 3,4-dihydro-4,7-dimethyl-, 1,1-dimethylethyl ester, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396076-51-0 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-4,7-dimethyl-, monohydrochloride, (4R)- (9CI) (CA INDEX NAME)

HCl

RN 396076-54-3 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-carboxylic acid, 3,4-dihydro-4,7,8-trimethyl-, 1,1-dimethylethyl ester, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396076-55-4 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-4,7,8-trimethyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396076-58-7 CAPLUS

CN Pyrazino[1,2-a]indole, 6,7-dichloro-1,2,3,4-tetrahydro-4-methyl-, monohydrochloride, (4R)- (9CI) (CA INDEX NAME)

HCl

RN 396076-68-9 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-carboxylic acid, 8-bromo-7-fluoro-3,4-dihydro-4-methyl-, 1,1-dimethylethyl ester, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396076-69-0 CAPLUS

CN Pyrazino[1,2-a]indole, 8-bromo-7-fluoro-1,2,3,4-tetrahydro-4-methyl-, monohydrochloride, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HCl

RN 396076-75-8 CAPLUS

CN Pyrazino[1,2-a]indole, 8-fluoro-1,2,3,4-tetrahydro-4,6-dimethyl-, monohydrochloride, (4R)- (9CI) (CA INDEX NAME)

● HCl

RN 396076-85-0 CAPLUS CN Pyrazino[1,2-a]indole, 6-bromo-1,2,3,4-tetrahydro-4,7-dimethyl-, (4R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 396076-91-8 CAPLUS
CN Pyrazino[1,2-a]indole-4-methanol, 1,2,3,4-tetrahydro-7-(trifluoromethyl)-,
(4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 396076-70-3, (R)-8-Bromo-7-fluoro-4-methyl-1,2,3,4 tetrahydropyrazino[1,2-a]indole 396639-62-6,
 (R)-9-Chloro-4-methyl-1,2,3,4-tetrahydropyrazino[1,2-a]indole
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant; prepn. of pyrazinoindoles and analogs as 5-HT receptor
 agonists for treatment of CNS diseases, cardiovascular disorders,
 gastrointestinal disorders, and obesity)
RN 396076-70-3 CAPLUS
CN Pyrazino[1,2-a]indole, 8-bromo-7-fluoro-1,2,3,4-tetrahydro-4-methyl-,

(4R)- (9CI) (CA INDEX NAME)

RN 396639-62-6 CAPLUS CN Pyrazino[1,2-a]indole, 9-chloro-1,2,3,4-tetrahydro-4-methyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 2 OF 24 CAPLUS COPYRIGHT 2002 ACS
L22
     2000:535145 CAPLUS
ΑN
     133:150579
DN
     Preparation of hexahydropyrazino[1,2-a]indoles as 5-HT2 receptor ligands
TI
     Adams, David Reginald; Bentley, Jon Mark; Davidson, James; Duncton,
IN
     Matthew Alexander James; Porter, Richard Hugh Phillip
     Vernalis Research Limited, UK
PA
SO
     PCT Int. Appl., 63 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                                           APPLICATION NO.
     PATENT NO.
                      KIND DATE
                                                             DATE
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                                                             20000128
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             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
             MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
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EP 1147110 A1 20011024 EP 2000-901240 20000128

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BR 2000008979 A 20020205 BR 2000-8979 PRAI GB 1999-2047 A 19990129

WO 2000-GB244 W 20000128

OS MARPAT 133:150579

GΙ

AB Title compds. [I; RR = substituted CH:CHCH:CH, -N:CHCH:CH, -CH:NCH:CH, etc.; R1-R3 = H or alkyl] were prepd. Thus, Me 6-chloroindole-2-carboxylate was N-alkylated by ClCH2CN and the product reductively cyclized to give, after redn., title compd. II. Data for biol. activity of I were given.

IT 126718-22-7P 287384-61-6P 287384-62-7P 287384-63-8P 287384-67-2P 287384-68-3P 287384-77-4P 287385-02-8P 287385-06-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of hexahydropyrazino[1,2-a]indoles as 5-HT2 receptor ligands)

RN 126718-22-7 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

RN 287384-61-6 CAPLUS

CN Pyrazino[1,2-a]indole, 7-chloro-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

RN 287384-62-7 CAPLUS

CN Pyrazino[1,2-a]indole, 7-chloro-1,2,3,4-tetrahydro-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 287384-61-6 CMF C11 H11 C1 N2

CM 2

CRN 110-17-8 CMF C4 H4 O4 CDES 2:E

Double bond geometry as shown.

RN 287384-63-8 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-, monohydrochloride (9CI) (CA INDEX NAME)

HC1

RN 287384-67-2 CAPLUS

CN Pyrazino[1,2-a]indole, 9-chloro-1,2,3,4-tetrahydro-, monohydrochloride

● HCl

RN 287384-68-3 CAPLUS CN Pyrazino[1,2-a]indole, 9-chloro-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

RN 287384-72-9 CAPLUS CN Pyrazino[1,2-a]indole, 7-bromo-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

RN 287384-77-4 CAPLUS CN Pyrazino[1,2-a]indole, 7-chloro-1,2,3,4-tetrahydro-8-methyl- (9CI) (CA INDEX NAME)

RN 287385-02-8 CAPLUS
CN Pyrazino[1,2-a]indole, 7-chloro-8-fluoro-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

RN 287385-06-2 CAPLUS CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-7-iodo- (9CI) (CA INDEX NAME)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L22
     ANSWER 3 OF 24 CAPLUS COPYRIGHT 2002 ACS
AN
     2000:84798 CAPLUS
DN
     132:137383
TI
     Preparation of pyrazole derivatives as antitumor agents
     Ejima, Akio; Ohsuki, Satoru; Ohki, Hitoshi; Naito, Hiroyuki; Makino, Chie
IN
     Daiichi Pharmaceutical Co., Ltd., Japan
PΑ
SO
     PCT Int. Appl., 189 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     Japanese
FAN.CNT 3
                      KIND DATE
                                           APPLICATION NO. DATE
     PATENT NO.
                                           _____
                           _____
                            20000203
                                          WO 1999-JP3962 19990723
     WO 2000005230
                     A1
         W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
             MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
             TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
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             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9948002
                            20000214
                                          AU 1999-48002
                                                            19990723
                       Α1
                                          EP 1999-931515
                            20010530
                                                            19990723
     EP 1103551
                       A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                                           JP 1999-211211
                                                            19990726
     JP 2000169475
                       A2
                            20000620
                                           NO 2001-405
                                                            20010123
     NO 2001000405
                       Α
                            20010322
PRAI JP 1998-208807
                            19980724
                       Α
     JP 1998-274459
                            19980929
                       Α
     WO 1999-JP3962
                       W
                            19990723
     MARPAT 132:137383
OS
GΙ
        C=C-CH-G
              <sub>R</sub>5
                    Т
AB
     The title compds. I [R1 = H, halo, etc.; R2 = H, halo, OH, etc.; R3 = H,
     amino, alkoxy, etc.; R4 = H, halo, alkylamino, etc.; R5 = H, alkyl, etc.;
     Q = heterocyclic ring, etc.; G = heterocyclic ring (further details on
     said ring are given)] are prepd. Compds. of this invention in vitro
     showed IC50 values of 0.6 ng/mL to 35 ng/mL against the growth of lung
     tumor cells.
IT
     256930-17-3P 256930-18-4P 256930-21-9P
```

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

Pyrazino[1,2-a]indole, 7-fluoro-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

(prepn. of pyrazole derivs. as antitumor agents)

256930-22-0P

RN

CN

(Reactant or reagent)

256930-17-3 CAPLUS

RN 256930-18-4 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-carboxylic acid, 7-fluoro-3,4-dihydro-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 256930-21-9 CAPLUS

CN Pyrazino[1,2-a]indole, 9-fluoro-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

RN 256930-22-0 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-carboxylic acid, 9-fluoro-3,4-dihydro-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L22 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2002 ACS

AN 1999:565911 CAPLUS

DN 131:179801

TI P-glycoprotein and MRP inhibitors for chemosensitizing multidrug resistant tumor cells

IN Smith, Charles

PA Fox Chase Cancer Center, USA

SO PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

W: CA, JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

US 1999-257829

19990225

US 6248752 B1 20010619

PRAI US 1998-76212P P 19980227

OS MARPAT 131:179801

AB Various compds., such as dihydropyridines, thiaxanthenes, phenothiazines, cyclosporines and acridonecarboxamides, effective in sensitizing drug resistant tumor cells are disclosed which are useful in cancer therapy. The compds. of the invention are ether: (1) selective inhibitors of P-glycoprotein function, (2) selective inhibitors of MRP function, or (3) dual inhibitors of both transporters. The compds. increased the toxicity of antitumor drug, e.g. actinomycin D toward P-glycoprotein-mediated multidrug resistant cells MCF-7/ADR and/or vincristine toward MRP-mediated multidrug resistant cells HL-60/ADR. Most of the compds. tested have low intrinsic cytotoxicity (<20% of cells killed by doses of 10 .mu.g/mL).

IT 149246-49-1

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

 $(P-glycoprotein \ and \ MRP \ inhibitors \ for \ chemosensitizing \ multidrug \ resistant \ tumor \ cells)$

RN 149246-49-1 CAPLUS

CN Pyrazino[1,2-a]indole-10-carboxylic acid, 7-bromo-2-(3-chlorophenyl)-1,2,3,4-tetrahydro-8-methoxy-, ethyl ester (9CI) (CA INDEX NAME)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 5 OF 24 CAPLUS COPYRIGHT 2002 ACS
L22
     1999:487536 CAPLUS
AN
     131:129985
DN
     Oxazolidines substituted by tricyclic indoles
ΤI
     Ruppelt, Martin; Bartel, Stephan; Guarnieri, Walter; Raddatz, Siegfried;
IN
     Rosentreter, Ulrich; Wild, Hanno; Endermann, Rainer; Kroll, Hein-Peter
     Bayer A.-G., Germany
PA
SO
     Ger. Offen., 40 pp.
     CODEN: GWXXBX
DΤ
     Patent
LΑ
     German
FAN.CNT 1
     PATENT NO.
                      KIND
                           DATE
                                           APPLICATION NO. DATE
                                           ______
                            19990729
                                           DE 1998-19802235 19980122
PI
     DE 19802235
                      Α1
     WO 9937652
                      Α1
                            19990729
                                           WO 1999-EP97
                                                         19990109
            AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
             MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
             TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                            19990809
                                           AU 1999-24206
     AU 9924206
                      A1
                                                            19990109
                                           EP 1999-903616
     EP 1049701
                            20001108
                                                            19990109
                       Α1
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2002501073
                       T2
                            20020115
                                           JP 2000-528573
                                                            19990109
PRAI DE 1998-19802235
                      Α
                            19980122
     WO 1999-EP97
                       W
                            19990109
     MARPAT 131:129985
GI
```

AB Approx. 25 antibacterial title compds. such as I (R = benzyl, p-methoxybenzyl, allyl, Bu, cyclohexyl, Et, Me; R1 = Ac, EtCO, CO2Me) were prepd. E.g., N-[3-(2-(ethoxycarbonyl)-5-indolylamino)-2-hydroxypropyl]acetamide was cyclized with carbonyldiimidazole to give 85% 3-(2-ethoxycarbonyl-5-indolyl)-5-(acetaminomethyl)-2-oxazolidinone. The MIC of I (R = Bu, R1 = Ac) was 4 .mu.g/mL against Staphylococcus Aureus. IT 234770-48-0P 234770-49-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and bactericidal activity of oxazolidines substituted by tricyclic indoles)

RN 234770-48-0 CAPLUS

CN Pyrazino[1,2-a]indol-3(4H)-one, 1,2-dihydro-2-methyl-8-nitro- (9CI) (CA INDEX NAME)

RN 234770-49-1 CAPLUS

CN Pyrazino[1,2-a]indol-3(4H)-one, 8-amino-1,2-dihydro-2-methyl- (9CI) (CA INDEX NAME)

$$H_2N$$
 N
 N
 O

IT 234770-50-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and bactericidal activity of oxazolidines substituted by tricyclic indoles)

RN 234770-50-4 CAPLUS

CN Acetamide, N-[(2R)-2-hydroxy-3-[(1,2,3,4-tetrahydro-2-methyl-3-oxopyrazino[1,2-a]indol-8-yl)amino]propyl]- (9CI) (CA INDEX NAME)

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L22 ANSWER 6 OF 24 CAPLUS COPYRIGHT 2002 ACS
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AN 1999:21683 CAPLUS

DN 130:81526

TI Preparation of 4-[(4-piperazinobeznoyl)amino]phenyl(oxy)alkanoates as fibrinogen receptor antagonists

IN Duggan, Mark E.; Egbertson, Melissa S.; Hartman, George D.; Young, Steven
D.; Ihle, Nathan C.

PA Merck and Co., Inc., USA

SO U.S., 78 pp. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PΙ

PATENT NO. KIND DATE APPLICATION NO. DATE
US 5854245 A 19981229 US 1997-883108 19970626

OS MARPAT 130:81526

AB XYZAB [I; A = (un)substituted (hetero)arylene; B = O(CH2)mCO2R9, (CH2)nCO2R9, CHR8(CH2)pCO2R9, OCHR8(CH2)pCO2R9; R8 = H, OH, alkyl, alkoxy, aryl, etc.; R9 = H, (ar)alkyl, aryl, acylalkyl, etc.; X = (un)substituted heterocyclyl or -heteroaryl; Y = (un)substituted heterocyclylene or -(hetero)arylene; Z = bond, NH, CONH, CO, CH2CH2, etc.; m = 1-3; n,p = 0-3] were prepd. Thus, 4-(H2N)C6H4CO2Me was cyclocondensed with HN(CH2CH2Cl)2 and the N-protected and sapond. product amidated by 4-BrC6H4NH2 to give the bromobenzanilide which was condensed with CH2:CHCO2Me and the product converted in 3 addnl. steps to 4-RC6H4CONHC6H4(CH2CH2CO2H)-4 (R = piperazino). Data for biol. activity of I were given.

IT 201808-19-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 4-[(4-piperazinobeznoyl)amino]phenyl(oxy)alkanoates as fibrinogen receptor antagonists)

RN 201808-19-7 CAPLUS

CN Acetic acid, [3-methyl-4-[[(1,2,3,4-tetrahydropyrazino[1,2-a]indol-8yl)carbonyl]amino]phenoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Me & O \\ \hline NH-C & NH-C \\ \hline \\ HO_2C-CH_2-O & NH-C \\ \hline \end{array}$$

IT 201809-32-7P 201809-34-9P 201809-36-1P 201809-38-3P 201809-40-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of 4-[(4-piperazinobeznoyl)amino]phenyl(oxy)alkanoates as fibrinogen receptor antagonists)

RN 201809-32-7 CAPLUS

CN Pyrazino[1,2-a]indole, 8-bromo-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)



RN 201809-34-9 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-carboxylic acid, 8-bromo-3,4-dihydro-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 201809-36-1 CAPLUS

CN Pyrazino[1,2-a]indole-2,8(1H)-dicarboxylic acid, 3,4-dihydro-, 2-(1,1-dimethylethyl) 8-methyl ester (9CI) (CA INDEX NAME)

RN 201809-38-3 CAPLUS

CN Pyrazino[1,2-a]indole-2,8(1H)-dicarboxylic acid, 3,4-dihydro-, 2-(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

RN 201809-40-7 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-carboxylic acid, 8-[[[4-(2-ethoxy-2-oxoethoxy)-2-methylphenyl]amino]carbonyl]-3,4-dihydro-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 7 OF 24 CAPLUS COPYRIGHT 2002 ACS
L22
AN
     1998:55617 CAPLUS
DN
     128:128034
     Preparation of heterocyclyl-containing O-substituted alcoholamines as
ΤI
     fibrinogen receptor antagonist prodrugs
     Young, Steven D.; Hartman, George D.; Libby, Laura A.; Egbertson, Melissa
ΙN
     S.; Slaughter, Donald E.
     Hartman, George D., USA; Libby, Laura A.; Egbertson, Melissa S.;
PA
     Slaughter, Donald E.; Merck + Co., Inc.; Young, Steven D.
SO
     PCT Int. Appl., 107 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                     KIND DATE
                                        APPLICATION NO. DATE
     PATENT NO.
                     ____
                                         _____
    WO 9800401
                     Al 19980108
                                        WO 1997-US11047 19970625
PΤ
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            VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
            GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
            GN, ML, MR, NE, SN, TD, TG
                           19980108
                                          CA 1997-2257950 19970625
     CA 2257950
                      AΑ
                                          AU 1997-35037
     AU 9735037
                      A1
                           19980121
                                                           19970625
     AU 719102
                      В2
                           20000504
                                          EP 1997-931401
     EP 912513
                      A1
                           19990506
                                                           19970625
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
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    JP 2000513375
                           20001010
                                          JP 1998-504266
                                                           19970625
 US 5932582
                                          US 1997-883107
                                                           19970626
                      Α
                           19990803
PRAI US 1996-20877P
                     Р
                           19960628
     GB 1996-17899
                      Α
                           19960828
     WO 1997-US11047 W
                           19970625
    MARPAT 128:128034
OS
GΙ
```

- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- The title compds. X-W-Y-Z-(A)r-B [I; W = (CH2)q (wherein q = 0 or 2); X = (un) substituted 5-7 membered (non) arom. ring having 1-3 heteroatoms selected from N, O, and S, 9-10 membered fused (non) arom. ring having 1-3 heteroatoms selected form N, O, and S; Y = (un) substituted 5-6 membered (non)arom. ring having 0-3 heteroatoms selected from N, O, and S, .delta.-lactam, II; XY = III, IV, V(q = 0); Z = (CH2)2, CH:CH, CH2O, etc.; A = (un)substituted 5-6 membered arom. ring having 0-3 heteroatoms selected from N, O, and S, 9-10 membered fused arom. ring having 0-3 $\,$ heteroatoms selected from N, O, and S; r = 0-1; B = O(CH2)pCH2NR8R7, CH2(CH2)tCH2NR8R7, CH(R9)(CH2)tCH2NR8R7, CH2CH(OPh)CH2NR8R7 (wherein R7-R9 = H, halo, C1-10 alkyl, etc.; p = 1-4; t = 0-4), useful in inhibiting the binding of fibrinogen to blood platelets, inhibiting the aggregation of blood platelets, treating or preventing thrombus or embolus formation, inhibiting osteoclast mediated bone resorption, inhibiting angiogenesis, and inhibiting tumor growth, were prepd. and formulated. Thus, reaction of 4-[4-(1,1-dimethylethoxycarbonyl)piperazin-1-yl]benzoic acid with 1-(1,1-dimethylethoxycarbonylamino)-2-(4-amino-3-methylphenoxy)ethane in the presence of chloro-N, N, N', N'-bis (pentamethylene) formamidinium hexafluorophosphate and (iPr)2NEt in CH2Cl2 followed by deprotection of the intermediate afforded the title compd. VI.2HCl. Compds. I are prodrugs of active acids X-W-Y-Z-(A)r-B [B = O(CH2)pCO2H, CH2(CH2)tCO2H,

CH(R9)(CH2)tCO2H, CH2CH(OPh)CO2H] which have been evaluated in vitro and found to have an IC50 for inhibiting platelet aggregation of between 8 nM and 10 .mu.M. Compds. I are effective at 0.9 mg/day - 1.8 g/day when administered orally to a typical 90 kg patient.

IT 201809-32-7P 201809-34-9P 201809-36-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. of heterocyclyl-contg. O-substituted alcoholamines as fibrinogen receptor antagonist prodrugs)

RN 201809-32-7 CAPLUS

CN Pyrazino[1,2-a]indole, 8-bromo-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

RN 201809-34-9 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-carboxylic acid, 8-bromo-3,4-dihydro-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 201809-36-1 CAPLUS

CN Pyrazino[1,2-a]indole-2,8(1H)-dicarboxylic acid, 3,4-dihydro-, 2-(1,1-dimethylethyl) 8-methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & O & O \\ \parallel & & C - OBu-t \end{array}$$

```
ANSWER 8 OF 24 CAPLUS COPYRIGHT 2002 ACS
T-22
    1998:55525 CAPLUS
AN
    128:128032
DN
    Preparation of heterocyclyl-substituted phenoxyalkanoic acids as
ΤI
    fibrinogen receptor antagonists
    Duggan, Mark E.; Egbertson, Melissa S.; Hartman, George D.; Young, Steven
IN
    D.; Ihle, Nathan C.
    Merck + Co., Inc., USA; Duggan, Mark E.; Egbertson, Melissa S.; Hartman,
PA
    George D.; Young, Steven D.; Ihle, Nathan C.
    PCT Int. Appl., 270 pp.
SO
    CODEN: PIXXD2
DΤ
    Patent
    English
LA
FAN.CNT 1
                     KIND DATE
                                         APPLICATION NO. DATE
    PATENT NO.
                     ----
                     A1 19980108
                                        WO 1997-US11133 19970625
        W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU,
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            NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ,
            VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
            GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
            GN, ML, MR, NE, SN, TD, TG
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                           19970117
    WO 1997-US11133
                           19970625
    MARPAT 128:128032
OS
GI
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The title compds. X-Y-Z-A-B [I; X = (un) substituted 5-7- membered arom. or AB nonarom. ring, having 1-3 heteroatoms selected from N, O, and S, (un) substituted 9-10 membered fused arom. or nonarom. ring, having 1-3 heteroatoms selected from N, O, and S; Y = (un)substituted 5-6 membered arom. or nonarom. ring, having 0-3 heteroatoms selected from N, O, and S; XY = II, III, IV, V; Z = C(O)NR4, N(R4)C(O), CH2CH2, CH:CH, etc.; R4 = H, C1-4 alkyl, C3-6 cycloalkyl; A = (un)substituted 5-6 membered arom. ring, having 0-3 heteroatoms selected from N, O, and S, 9-10 membered fused arom. ring having 0-3 heteroatoms (N, O, and S); B = C(CH2)mCO2R9, (CH2)nCO2R9, CH(R8)(CH2)pCO2R9, OCH(R8)(CH2)pCO2R9 (wherein m = 1-3; n = 1-30-3; p = 0-3; R8 = H, aryl, amino, etc.; R9 = H, aryl, C1-8 alkyl, etc.)], useful in inhibiting the binding of fibrinogen to blood platelets, inhibiting the aggregation of blood platelets, treating thrombus or embolus formation, inhibiting osteoclast mediated bone resorption, inhibiting angiogenesis, and in inhibiting tumor growth, were prepd. and formulated. Thus, a few-step detailed synthesis of the acid VI which showed IC50 in the range between 10 nM and 50 mM against ADP-stimulated platelet aggregation, was described.

IT 201808-19-7P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclyl-substituted phenoxyalkanoic acids as fibrinogen receptor antagonists)

RN

201808-19-7 CAPLUS Acetic acid, [3-methyl-4-[[(1,2,3,4-tetrahydropyrazino[1,2-a]indol-8-CN yl)carbonyl]amino]phenoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Me & O \\ \hline NH-C & NH \\ \hline \end{array}$$

201809-32-7P 201809-34-9P 201809-36-1P IT 201809-38-3P 201809-40-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. of heterocyclyl-substituted phenoxyalkanoic acids as fibrinogen receptor antagonists)

201809-32-7 CAPLUS RN

Pyrazino[1,2-a]indole, 8-bromo-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME) CN

201809-34-9 CAPLUS RN

Pyrazino[1,2-a]indole-2(1H)-carboxylic acid, 8-bromo-3,4-dihydro-, CN 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 201809-36-1 CAPLUS

Pyrazino[1,2-a]indole-2,8(1H)-dicarboxylic acid, 3,4-dihydro-, 2-(1,1-dimethylethyl) 8-methyl ester (9CI) (CA INDEX NAME)

201809-38-3 CAPLUS

Pyrazino[1,2-a]indole-2,8(1H)-dicarboxylic acid, 3,4-dihydro-, CN 2-(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

RN 201809-40-7 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-carboxylic acid, 8-[[[4-(2-ethoxy-2-oxoethoxy)-2-methylphenyl]amino]carbonyl]-3,4-dihydro-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L22 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2002 ACS

AN 1997:275794 CAPLUS

DN 127:17640

TI Synthesis, pharmacology and therapeutic potential of 10methoxypyrazino[1,2-a]indoles, partial agonists at the 5HT2C receptor

AU Bos, M.; Jenck, F.; Martin, J. R.; Moreau, J. L.; Mutel, V.; Sleight, A. J.; Widmer, U.

CS Pharma Division, Preclinical CNS Researc, F Hoffmann-La Roche Ltd., Basel, CH-4070, Switz.

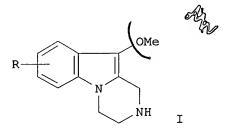
SO Eur. J. Med. Chem. (1997), 32(3), 253-261 CODEN: EJMCA5; ISSN: 0223-5234

PB Elsevier

DT Journal

LA English

GΙ



3 m EP

AB A series of new 10-methoxypyrazino[1,2-a]indoles I (R = H, 6-Br, 7-Cl, 9-F, etc.) has been prepd. and shown to be 5HT2C receptor ligands. The studied compds. were found to act as partial agonists at the 5HT2C receptor, binding with high affinity and moderate selectivity vs. 5HT1A and 5HT2A receptors, but inducing only a submaximal increase in phosphoinositol formation. I (R = 9-Me) was demonstrated to be active in animal models of obsessive-compulsive disorder, depression and panic anxiety.

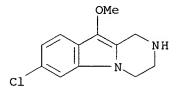
IT 190433-41-1P 190433-42-2P 190433-43-3P 190433-44-4P 190433-45-5P 190433-47-7P 190433-48-8P 190433-49-9P 190433-50-2P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and serotonin receptor agonistic activity of pyrazinoindoles)

RN 190433-41-1 CAPLUS

CN Pyrazino[1,2-a]indole, 7-chloro-1,2,3,4-tetrahydro-10-methoxy-, monohydrochloride (9CI) (CA INDEX NAME)



HC1

RN 190433-42-2 CAPLUS

CN Pyrazino[1,2-a]indole, 8-fluoro-1,2,3,4-tetrahydro-10-methoxy-,
monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 190433-43-3 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-10-methoxy-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 190433-44-4 CAPLUS

CN Pyrazino[1,2-a]indole, 9-fluoro-1,2,3,4-tetrahydro-10-methoxy-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 190433-45-5 CAPLUS

CN Pyrazino[1,2-a]indole, 9-bromo-1,2,3,4-tetrahydro-10-methoxy-, monohydrochloride (9CI) (CA INDEX NAME)

RN 190433-47-7 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-10-methoxy-9-(1-methylethyl)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 190433-46-6 CMF C15 H20 N2 O

CM 2

CRN 110-17-8 CMF C4 H4 O4 CDES 2:E

Double bond geometry as shown.

$$_{\rm HO_2C}$$
 $^{\rm E}$ $_{\rm CO_2H}$

RN 190433-48-8 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-10-methoxy-9-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 190433-49-9 CAPLUS

CN Pyrazino[1,2-a]indole, 6-bromo-1,2,3,4-tetrahydro-10-methoxy-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

● HCl

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L22 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2002 ACS
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AN 1994:191736 CAPLUS

DN 120:191736

TI CNS-Active pyrazinoindoles and their preparation, compositions, and use

IN Boes, Michael

PA F. Hoffmann-La Roche AG, Switz.

SO Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN. CNT 1

FAN.CNT I						
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
EP 572863	A1	19931208	EP 1993-108129	19930519		
R: AT, BE,	CH, DE	, DK, ES, FR,	GB, GR, IE, IT, LI	, LU, MC, NL,		
ZA 9303796	A	19931206	ZA 1993-3796	19930528		
AU 9339916	A1	19931209	AU 1993-39916	19930531		
AU 662977	B2	19950921				
CA 2097465	AA	19931206	CA 1993-2097465	19930601		
CN 1080925	Α	19940119	CN 1993-106906	19930604		
JP 06041132	A2	19940215	JP 1993-135891	19930607 ′		
CH 1992-1819		19920605				
СН 1993-1307		19930429				
MARPAT 120:19173	36					
	PATENT NO	PATENT NO. KIND	PATENT NO. KIND DATE	PATENT NO. KIND DATE APPLICATION NO. EP 572863 A1 19931208 EP 1993-108129 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI ZA 9303796 A 19931206 ZA 1993-3796 AU 9339916 A1 19931209 AU 1993-39916 AU 662977 B2 19950921 CA 2097465 AA 19931206 CA 1993-2097465 CN 1080925 A 19940119 CN 1993-106906 JP 06041132 A2 19940215 JP 1993-135891 CH 1992-1819 19920605 CH 1993-1307 19930429		

PT, SE

Title compds. I [R1 = H, halo, CF3, alkyl, OH, alkoxy; R2 = H, halo; R3 = AB H, alkoxy, alkylthio; R3 = H only when R1 and R2 both .noteq. H] and their pharmaceutically acceptable salts are claimed, as are their use and compns. for treating a variety of specific disorders. Fifteen syntheses of I salts, and 2 formulations are given, plus test data for binding to 4 serotoninergic (5-HT) receptor subtypes, and 2 addnl. in-vivo tests. Thus, Et 6-bromoanthranilate underwent N-alkylation by BrCH2CO2Et (96.8%) and cyclization by NaOEt in EtOH/Et20 (90%) to give Et 4-bromo-3-hydroxyindole-2-carboxylate. This underwent O-methylation by CH2N2 (79%) and a combination of N-alkylation with BrCH2CH2Br and cyclization with NH3 (92%) to give pyrazinoindolone deriv. II. Redn. of II with LiAlH4 in THF gave 36% I (R1 = H, R2 = 9-Br, R3 = OMe) (III), isolated as the HCl salt. In tests for binding to 5-HT1B and 5-HT1C receptors, III had IC50 values of 56.10 and 83.8 nM (cf. 19.70 for CP 93129, and 37.0 for ritanserin, resp.).

IT 153500-80-2P 153500-81-3P 153500-82-4P 153500-83-5P 153500-84-6P 153500-85-7P 153500-86-8P 153500-87-9P 153500-88-0P 153500-90-4P 153500-91-5P 153500-92-6P 153500-93-7P 153500-95-9P 153500-96-0P 153500-97-1P 153500-98-2P 153501-02-1P 153501-03-2P 153501-05-4P 153501-06-5P

153501-07-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, as CNS agent)

RN 153500-80-2 CAPLUS

CN Pyrazino[1,2-a]indole, 8-fluoro-1,2,3,4-tetrahydro-10-methoxy-, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

RN 153500-81-3 CAPLUS

CN Pyrazino[1,2-a]indole, 9-fluoro-1,2,3,4-tetrahydro-10-methoxy-, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 153500-82-4 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-10-methoxy-, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

RN 153500-83-5 CAPLUS

CN Pyrazino[1,2-a]indole, 9-bromo-1,2,3,4-tetrahydro-10-methoxy-, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 153500-84-6 CAPLUS

CN Pyrazino[1,2-a]indole, 7-chloro-1,2,3,4-tetrahydro-10-methoxy-, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

RN 153500-85-7 CAPLUS

CN Pyrazino[1,2-a]indole, 8-bromo-1,2,3,4-tetrahydro-10-methoxy-, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

RN 153500-86-8 CAPLUS

CN Pyrazino[1,2-a]indole, 9-chloro-8-fluoro-1,2,3,4-tetrahydro-10-methoxy-, hydrochloride (9CI) (CA INDEX NAME)

RN 153500-87-9 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-10-methoxy-9-methyl-, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

RN 153500-88-0 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-10-methoxy-9-(trifluoromethyl)-, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

RN 153500-90-4 CAPLUS

CN Pyrazino[1,2-a]indole, 7,9-dichloro-1,2,3,4-tetrahydro-10-methoxy-, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

RN 153500-91-5 CAPLUS

CN Pyrazino[1,2-a]indole, 6-bromo-1,2,3,4-tetrahydro-10-methoxy-, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 153500-92-6 CAPLUS

CN Pyrazino[1,2-a]indole, 7-chloro-8-fluoro-1,2,3,4-tetrahydro-10-methoxy-, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

RN 153500-93-7 CAPLUS

CN Pyrazino[1,2-a]indole, 9-chloro-8-fluoro-1,2,3,4-tetrahydro-, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

RN 153500-95-9 CAPLUS

CN Pyrazino[1,2-a]indole, 8-fluoro-1,2,3,4-tetrahydro-10-methoxy- (9CI) (CA INDEX NAME)

RN 153500-96-0 CAPLUS

CN Pyrazino[1,2-a]indole, 9-fluoro-1,2,3,4-tetrahydro-10-methoxy- (9CI) (CA

INDEX NAME)

RN 153500-97-1 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-10-methoxy- (9CI) (CA INDEX NAME)

RN 153500-98-2 CAPLUS

CN Pyrazino[1,2-a]indole, 9-bromo-1,2,3,4-tetrahydro-10-methoxy- (9CI) (CA INDEX NAME)

RN 153500-99-3 CAPLUS

CN Pyrazino[1,2-a]indole, 7-chloro-1,2,3,4-tetrahydro-10-methoxy- (9CI) (CA INDEX NAME)

RN 153501-00-9 CAPLUS

CN Pyrazino[1,2-a]indole, 8-bromo-1,2,3,4-tetrahydro-10-methoxy- (9CI) (CA INDEX NAME)

RN 153501-01-0 CAPLUS

CN Pyrazino[1,2-a]indole, 9-chloro-8-fluoro-1,2,3,4-tetrahydro-10-methoxy-(9CI) (CA INDEX NAME)

RN 153501-02-1 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-10-methoxy-9-methyl- (9CI) (CA INDEX NAME)

RN 153501-03-2 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-10-methoxy-9-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 153501-05-4 CAPLUS

CN Pyrazino[1,2-a]indole, 7,9-dichloro-1,2,3,4-tetrahydro-10-methoxy- (9CI) (CA INDEX NAME)

RN 153501-06-5 CAPLUS

CN Pyrazino[1,2-a]indole, 6-bromo-1,2,3,4-tetrahydro-10-methoxy- (9CI) (CA INDEX NAME)

RN 153501-07-6 CAPLUS

CN Pyrazino[1,2-a]indole, 9-chloro-8-fluoro-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

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L22 ANSWER 11 OF 24 CAPLUS COPYRIGHT 2002 ACS
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AN 1993:517210 CAPLUS

DN 119:117210

TI Synthesis and pharmacological study of 1,2,3,4-tetrahydropyrazino[1,2-a]indole derivatives

AU Tsyshkova, N. G.; Trofimov, F. A.; Marinchenko, V. P.; Dubovik, B. V.; Lushnikova, G. A.; Shvedov, V. I.

CS NII Med. Radiol., Obninsk, Russia

SO Khim.-Farm. Zh. (1992), 26(9-10), 70-2 CODEN: KHFZAN; ISSN: 0023-1134

DT Journal

LA Russian

OS CASREACT 119:117210

GI

AB Nenitzescu cyclization of p-benzoquinone with (E)-(BrCH2CH2NH)CMe:CHCO2Et afforded hydroxyindole deriv. I, which was methylated (Me2SO4) and brominated with 1 mol NBS in CCl4 to afford bromomethoxyindole deriv. II; side chain bromination of II with 1 mol NBS in presence of a radical initiator afforded 86% bromomethyl deriv. III. Cyclization reaction of III with arylamines afforded the title compds. IV (R = m-Cl, H, p-Me, p-OMe, m-CONH2, p-F); cyclization of III with Na2S afforded thiazinoindole V. IV were inactive as antidepressants.

IT 149246-50-4P 149246-53-7P 149246-54-8P

RN 149246-50-4 CAPLUS

CN Pyrazino[1,2-a]indole-10-carboxylic acid, 7-bromo-1,2,3,4-tetrahydro-8-methoxy-2-phenyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 149246-53-7 CAPLUS

CN Pyrazino[1,2-a]indole-10-carboxylic acid, 2-[3-(aminocarbonyl)phenyl]-7-bromo-1,2,3,4-tetrahydro-8-methoxy-, ethyl ester (9CI) (CA INDEX NAME)

RN 149246-54-8 CAPLUS

CN Pyrazino[1,2-a]indole-10-carboxylic acid, 7-bromo-2-(4-fluorophenyl)-1,2,3,4-tetrahydro-8-methoxy-, ethyl ester (9CI) (CA INDEX NAME)

IT 149246-49-1P 149246-51-5P 149246-52-6P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as antidepressant, inactive)

RN 149246-49-1 CAPLUS

CN Pyrazino[1,2-a]indole-10-carboxylic acid, 7-bromo-2-(3-chlorophenyl)-1,2,3,4-tetrahydro-8-methoxy-, ethyl ester (9CI) (CA INDEX NAME)

RN 149246-51-5 CAPLUS

CN Pyrazino[1,2-a]indole-10-carboxylic acid, 7-bromo-1,2,3,4-tetrahydro-8-

methoxy-2-(4-methylphenyl)-, ethyl ester (9CI) (CA INDEX NAME)

RN 149246-52-6 CAPLUS

CN Pyrazino[1,2-a]indole-10-carboxylic acid, 7-bromo-1,2,3,4-tetrahydro-8-methoxy-2-(4-methoxyphenyl)-, ethyl ester (9CI) (CA INDEX NAME)

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L22 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2002 ACS
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AN 1992:59321 CAPLUS

DN 116:59321

TI Synthesis of 10-phenyl-1,2,3,4-tetrahydropyrazino[1,2-a]indoles and ethyl 1-(2-aminoethyl)-3-phenylindole-2-carboxylates

AU Basanagoudar, L. D.; Mahajanshetti, C. S.; Hendi, S. B.; Dambal, S. B.

CS Dep. Chem., Karnatak Univ., Dharwad, 580 003, India

SO Indian J. Chem:, Sect. B (1991), 30B(11), 1014-17 CODEN: IJSBDB; ISSN: 0376-4699

DT Journal

LA English

GI

RN

AB Cyanomethylation of 3-phenylindole-2-carboxylates I (R = H, Me, OMe, OEt, Br, Cl, Rl = H; R = H, Rl = Cl, Me; R = Rl = Me; R2 = H, R3 = Et) with ClCH2CN in the presence of NaH in DMF gave the corresponding 2-cyanoethyl derivs. I (R2 = CH2CN) (II). Reductive cyclization of II with LiAlH4 gave directly 10-phenyl-1,2,3,4-tetrahydropyrazino[1,2-a]indoles III. Catalytic hydrogenation of II gave 2-aminoethyl derivs. I (R2 = CH2CH2NH2) (IV), while hydrolysis gave 2-carboxy-3-phenylindolecarboxylates I (R2 = CH2CO2H, R3 = H). III and IV were screened for antiserotonin and antihistamine activities. Some compds. exhibit pronounced activities.

IT 39626-24-9P 138653-65-3P 138653-66-4P 138653-67-5P 138653-68-6P 138653-69-7P 138653-70-0P 138653-71-1P 138654-03-2P 138654-04-3P 138654-05-4P 138654-06-5P 138654-07-6P 138654-08-7P 138654-09-8P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

39626-24-9 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-10-phenyl- (9CI) (CA INDEX NAME)

RN 138653-65-3 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methyl-10-phenyl- (9CI) (CA INDEX NAME)

RN 138653-66-4 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methoxy-10-phenyl- (9CI) (CA INDEX NAME)

RN 138653-67-5 CAPLUS

CN Pyrazino[1,2-a]indole, 8-ethoxy-1,2,3,4-tetrahydro-10-phenyl- (9CI) (CA INDEX NAME)

RN 138653-68-6 CAPLUS

CN Pyrazino[1,2-a]indole, 8-bromo-1,2,3,4-tetrahydro-10-phenyl- (9CI) (CA INDEX NAME)

RN 138653-69-7 CAPLUS

CN Pyrazino[1,2-a]indole, 6-chloro-1,2,3,4-tetrahydro-10-phenyl- (9CI) (CA INDEX NAME)

RN 138653-70-0 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-6-methyl-10-phenyl- (9CI) (CA INDEX NAME)

RN 138653-71-1 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-6,8-dimethyl-10-phenyl- (9CI) (CA INDEX NAME)

RN 138654-03-2 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methyl-10-phenyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 138653-65-3 CMF C18 H18 N2

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 138654-04-3 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methoxy-10-phenyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 138653-66-4 CMF C18 H18 N2 O

CRN 144-62-7 CMF C2 H2 O4

RN 138654-05-4 CAPLUS

CN Pyrazino[1,2-a]indole, 8-ethoxy-1,2,3,4-tetrahydro-10-phenyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 138653-67-5 CMF C19 H20 N2 O

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 138654-06-5 CAPLUS

CN Pyrazino[1,2-a]indole, 8-bromo-1,2,3,4-tetrahydro-10-phenyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 138653-68-6 CMF C17 H15 Br N2

CRN 144-62-7 CMF C2 H2 O4

RN 138654-07-6 CAPLUS

CN Pyrazino[1,2-a]indole, 6-chloro-1,2,3,4-tetrahydro-10-phenyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 138653-69-7 CMF C17 H15 C1 N2

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 138654-08-7 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-6-methyl-10-phenyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 138653-70-0 CMF C18 H18 N2

CRN 144-62-7 CMF C2 H2 O4

RN 138654-09-8 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-6,8-dimethyl-10-phenyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 138653-71-1 CMF C19 H20 N2

CM 2

CRN 144-62-7 CMF C2 H2 O4

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L22 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2002 ACS
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AN 1990:406277 CAPLUS

DN 113:6277

TI Synthesis of 1,2,3,4-tetrahydropyrazino[1,2-a]indoles and ethyl 1-(2-aminoethyl)indole-2-carboxylates

AU Rajur, Sharanabasava B.; Merwade, A. Y.; Hendi, S. B.; Basanagoudar, L. D.

CS Dep. Chem., Karnatak Univ., Dharwad, 580 003, India

SO Indian J. Chem., Sect. B (1989), 28B(12), 1065-8 CODEN: IJSBDB; ISSN: 0376-4699

DT Journal

LA English

OS CASREACT 113:6277

GΙ

ented .m.

AB Several Et 1-(cyanomethyl)indole-2-carboxylates (I) on reductive cyclization with LiAlH4 afford the corresponding 1,2,3,4-tetrahydropyrazino[1,2-a]indoles (II; R = H, Me; R1 = H, Me, MeO, EtO, Br, Cl). Catalytic hydrogenation of I results in 1-(2-aminoethyl)indole-2-carboxylates (III). Hydrolysis of I gives the corresponding diacids. Certain examples of II and III exhibit remarkable antiserotonin and antihistamine activities.

IT 126718-16-9P 126718-18-1P 126718-20-5P 126718-22-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. and antiserotonin and antihistamine activity of)

RN 126718-16-9 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methyl- (9CI) (CA INDEX NAME)

$$\operatorname{HN} \bigcup_{N} \operatorname{Me}$$

RN 126718-18-1 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methoxy- (9CI) (CA INDEX NAME)

$$\mathsf{HN} \underbrace{\hspace{1cm} \mathsf{N}} \mathsf{OMe}$$

RN 126718-20-5 CAPLUS

CN Pyrazino[1,2-a]indole, 8-ethoxy-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

RN 126718-22-7 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

IT 126718-02-3P 126718-03-4P 126718-17-0P

126718-19-2P 126718-21-6P 126718-23-8P

126718-26-1P 126718-27-2P 126718-28-3P

126718-29-4P 126718-30-7P 126718-31-8P

126718-32-9P 127076-11-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

RN 126718-02-3 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-10-methyl- (9CI) (CA INDEX NAME)

RN 126718-03-4 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-10-methyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126718-02-3 CMF C12 H13 C1 N2

CRN 144-62-7 CMF C2 H2 O4

RN 126718-17-0 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126718-16-9 CMF C12 H14 N2

$$\underset{N}{\text{HN}} \qquad \underset{N}{\text{Me}}$$

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 126718-19-2 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methoxy-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126718-18-1 CMF C12 H14 N2 O

$$HN \longrightarrow N$$

CM 2

CRN 144-62-7 CMF C2 H2 O4

CM 1

CRN 126718-20-5 CMF C13 H16 N2 O

*** . . .

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 126718-23-8 CAPLUS
CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126718-22-7 CMF C11 H11 C1 N2

$$\begin{array}{c|c} HN & & C1 \\ \hline \end{array}$$

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 126718-26-1 CAPLUS CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8,10-dimethyl- (9CI) (CA INDEX

RN 126718-27-2 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8,10-dimethyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126718-26-1 CMF C13 H16 N2

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 126718-28-3 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methoxy-10-methyl- (9CI) (CA INDEX NAME)

RN 126718-29-4 CAPLUS

CN Pyrazino[1,2-a]indole, 8-ethoxy-1,2,3,4-tetrahydro-10-methyl- (9CI) (CA INDEX NAME)

RN 126718-30-7 CAPLUS
CN Pyrazino[1,2-a]indole, 8-ethoxy-1,2,3,4-tetrahydro-10-methyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126718-29-4 CMF C14 H18 N2 O

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 126718-31-8 CAPLUS
CN Pyrazino[1,2-a]indole, 8-bromo-1,2,3,4-tetrahydro-10-methyl- (9CI) (CA INDEX NAME)

RN 126718-32-9 CAPLUS

CN Pyrazino[1,2-a]indole, 8-bromo-1,2,3,4-tetrahydro-10-methyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126718-31-8 CMF C12 H13 Br N2

CM 2

CRN 144-62-7 CMF C2 H2 O4

RN

127076-11-3 CAPLUS
Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methoxy-10-methyl-, ethanedioate (1:1) (9CI) (CA INDEX NAME) CN

CM

CRN 126718-28-3 CMF C13 H16 N2 O

CM 2

CRN 144-62-7 CMF C2 H2 O4

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L22 ANSWER 14 OF 24 CAPLUS COPYRIGHT 2002 ACS
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AN 1984:423433 CAPLUS

DN 101:23433

TI Synthesis and psychotropic activity of tricyclic analogs of pyrazidole

AU Grinev, A. N.; Shvedov, V. I.; Krichevskii, E. S.; Romanova, O. B.; Altukhova, L. B.; Kurilo, G. N.; Andreeva, N. I.; Golovina, S. M.; Mashkovskii, M. D.

CS Vses. Nauchno-Issled. Khim.-Farm. Inst., USSR

SO Khim.-Farm. Zh. (1984), 18(2), 159-63 CODEN: KHFZAN; ISSN: 0023-1134

DT Journal

LA Russian

OS CASREACT 101:23433

GΙ

AB RCOC(CH2R1):NNHC6H4R2-p (R = R2 = Me, R1 = Me, Et; R = Pr, R1 = Me, R2 = H, Me, MeO, Cl; R = Me, R1 = Ph, R2 = NO2), prepd. in 38.9-60.8% yields by condensation of RCOCH2CH2R1 with HCO2Et followed by coupling with p-R2C6H4N2+Cl-, were cyclized by acid to give 44.5-60% I (R3 = H) which were substituted by BrCH2CH(OBu)2 to give intermediates I [R3 = (BuO)2CHCH2]. The latter were cyclized by NH4OAc-AcOH to give 54.3-66.6% II which were hydrogenated 3-4 h at 50.degree. and 70 atm over Raney Ni to give 84.5-91.2% III (R = R2 = Me, R1 = Me, Et; R = Pr, R1 = Me, R2 = H, Me). III (R = R2 = Me, R1 = Me, Et) were effective antidepressants as shown by their 50% redn. of reserpine-induced ptosis in mice at 20-25 mg/kg.

IT 62268-26-2P 90237-32-4P 90237-33-5P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and antidepressant activity of)

RN 62268-26-2 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8,10-dimethyl-1-propyl-,
monohydrochloride (9CI) (CA INDEX NAME)



● HCl

● HCl

HCl

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L22 ANSWER 15 OF 24 CAPLUS COPYRIGHT 2002 ACS
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AN 1977:468421 CAPLUS

DN 87:68421

TI 10-Aryl-1,2,3,4-tetrahydropyrazino[1,2-a]indole and derivatives

IN Freed, Meier E.

PA American Home Products Corp., USA

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

LAM.	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GI	US 4022778	Α	19770510	US 1971-196178	19711105



The pyrazinoindoles I [R = H, Me2N(CH2)3, ClCH2CO, Et2NCH2CO, Et2NCH2CH2, pyrrolidino; X = O, H2] were prepd. Thus, Et N-(2-benzoyl-4-chlorophenyl)glycinate was cyclized with EtONa and the Et 3-phenyl-5-chloro-2-indolecarboxylate treated with ClCH2CN followed by redn. and cyclization to give I (R = H, X = O), which was treated with Me2N(CH2)3Cl and reduced to give I [R = Me2N(CH2)3, X = H2]. At 127-400 mg/kg I were central nervous system depressants and anticonvulsants.

IT 63458-12-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and reaction with diethylamine)

RN 63458-12-8 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-2-(chloroacetyl)-1,2,3,4-tetrahydro-10-phenyl- (9CI) (CA INDEX NAME)

IT 63458-13-9P

RN 63458-13-9 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-2-[(diethylamino)acetyl]-1,2,3,4-tetrahydro-10-phenyl- (9CI) (CA INDEX NAME)

$$C1$$
 $\begin{array}{c} Ph \\ C-CH_2-NEt_2 \end{array}$

IT 39626-24-9P 63458-11-7P 63458-14-0P

63458-16-2P 63458-17-3P

RN 39626-24-9 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-10-phenyl- (9CI) (CA INDEX NAME)

RN 63458-11-7 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-propanamine, 8-chloro-3,4-dihydro-N,N-dimethyl-10-phenyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 63458-10-6 CMF C22 H26 C1 N3

C1
$$N$$
 (CH₂) 3-NMe₂

CM 2

CRN 110-17-8 CMF C4 H4 O4 CDES 2:E

Double bond geometry as shown.

RN 63458-14-0 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-ethanamine, 8-chloro-N,N-diethyl-3,4-dihydro-10-phenyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{C1} & \text{Ph} \\ \hline & \text{CH}_2\text{--}\text{CH}_2\text{--}\text{NEt}_2 \\ \hline & \text{N} \end{array}$$

RN 63458-16-2 CAPLUS

CN Pyrazino[1,2-a]indole-2(1H)-ethanamine, 8-chloro-N,N-diethyl-3,4-dihydro-10-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

CM 1

CRN 39626-24-9 CMF C17 H15 C1 N2

CM 2

CRN 110-17-8 CMF C4 H4 O4 CDES 2:E

Double bond geometry as shown.

L22 ANSWER 16 OF 24 CAPLUS COPYRIGHT 2002 ACS

AN 1977:447919 CAPLUS

DN 87:47919

TI Comparative study of the pharmacological activity of some pyrazidol structural analogs and their effect on neuronal capture of noradrenaline and on the activity of the monoamine oxidase

AU Andreeva, N. I.; Altukhova, L. B.; Asnina, V. V.; Vasil'evykh, L. G.; Gorkin, V. Z.; Mashkovskii, M. D.

CS Vses. Nauchno-Issled. Khim.-Farm. Inst. im. Ordzhonikidze, Moscow, USSR

SO Khim.-Farm. Zh. (1976), 10(11), 46-9 CODEN: KHFZAN

DT Journal

LA Russian

GΙ

AΒ Pyrazidol (I) [16154-78-2] (25 mg/kg) given s.c. to mice inhibited reserpine-induced eyelid ptosis 40-60% and increased the group toxic effect of phenamine, 5-hydroxytryptamine-induced head shaking, and tryptamine-induced convulsions. At 5 mg/kg i.v. I increased the pressor response to tyramine in cats, at 10-5M inhibited uptake of noradrenaline by isolated rat heart, and at 10-3M inhibited monoamine oxidase activity of rat liver. II [16154-77-1] (demethylated in position 8) produced similar but weaker effects. III [63127-68-4] (with an open D ring) had no effect on reserpine ptosis or on the effects of phenamine or tyramine or on noradrenaline uptake by rat heart, but it potentiated the effects of 5-hydroxytryptamine and tryptamine and inhibited monoamine oxidase. IV [62268-26-2] (with an open C ringe only inhibited the pressor activity of tyramine and inhibited monoamine oxidase activity. pharmacol. effects of I depended on the 1,10-trimethylenepiperazinendole heterocycle and a Me in position 8.

IT 62268-26-2

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (pharmacol. of, structure in relation to)

RN 62268-26-2 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8,10-dimethyl-1-propyl-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

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L22 ANSWER 17 OF 24 CAPLUS COPYRIGHT 2002 ACS
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AN 1975:497412 CAPLUS

DN 83:97412

TI 1,4-Benzodiazepine derivatives

IN Hellerbach, Joseph; Walser, Armin

PA Hoffmann-La Roche, F., und Co., A.-G., Switz.

SO Patentschrift (Switz.), 5 pp. Division of Swiss 560,201. CODEN: SWXXAS

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PΙ	CH 561702	Α	19750515	CH 1974-16086	19690311

GI For diagram(s), see printed CA Issue.

AB Cleavage of pyrazino[1,2-a]indole I gave 1-(2-benzoyl-4-chlorophenyl)piperazine-2,3-dione, which was cyclized to give benzodiazepine II (R = H), which was methylated to give II (R = Me). Et 5-chloro-3-phenylindole-2-carboxylate was treated with ClCH2CN to give Et 5-chloro-1-cyanomethyl-3-phenylindole-2-carboxylate, which was reduced to give 1-(2-aminoethyl)-5-chloro-3-phenylindole-2-methanol, which was cyclized to give I.

IT 39626-24-9

RL: RCT (Reactant)
 (cleavage of)

RN 39626-24-9 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-10-phenyl- (9CI) (CA INDEX NAME)

L22 ANSWER 18 OF 24 CAPLUS COPYRIGHT 2002 ACS

AN 1975:140093 CAPLUS

DN 82:140093

TI Pyrazino[1,2-a]-[1,2-a]indoles. II. Synthesis of 1-substituted and 1,4-diazepino 10-phenyl-3,4-dihydropyrazino(1,2-a)indoles and 11-phenyl-4,5-dihydro-3H-1,4-diazepino(1,2-a)indoles

AU Gatta, F.; Zaccari, V.; Huidobro-Toro, J. P.; Chiavarelli, S.

CS Lab. Chim. Ter., Ist. Super Sanita, Rome, Italy

SO Farmaco, Ed. Sci. (1975), 30(1), 58-69 CODEN: FRPSAX

DT Journal

LA Italian

GI For diagram(s), see printed CA Issue.

The condensed indoles I (R = H, Cl; Rl = Me, Ph; n = 2, 3) were prepd. by treating the indoles II (R = H, Cl; R2 = R3 = H) with ClCH2CN or II (R = H, Cl; R2 = H; R3 = Bz) with CH2:CHCN, reducing and acylating II [R2 = (CH2)n-1CN] and cyclizing II [R2 = (CH2)nNHCOR3; R3 = Me, Ph] with POCl3 or polyphosphoric acid. Catalytic hydrogenation of I gave the 1,2-dihydro derivs. Both I and their 1,2-dihydro derivs. were sedatives, muscle relaxants, and antiadrenergics.

IT 54735-16-9P

RN 54735-16-9 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-1,10-diphenyl- (9CI) (CA INDEX NAME)



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L22 ANSWER 19 OF 24 CAPLUS COPYRIGHT 2002 ACS
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AN 1974:108577 CAPLUS

DN 80:108577

TI Piperazinoindole derivatives

IN Yamamoto, Hisao; Okamoto, Tadashi; Kobayashi, Tsuyoshi

PA Sumitomo Chemical Co., Ltd.

SO Japan., 3 pp. CODEN: JAXXAD

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DΤ	TD 40020000	B/I	10720017	TP 1968-70340	19680927

PI JP 48030080 B4 19730917 JP GI For diagram(s), see printed CA Issue.

AB Title nervous system depressants (I, R1 = lower alkyl, aralkyl, aryl, R = H, halogen, lower alkoxy) were prepd. by treating I (R1 = H) with an alc. or alkyl halide. Thus, 2.8 g I (R = 7-Cl, R1 = H) was treated with NaH followed by PhCH2Br in DMF to give 2.8 g I (R = 7-Cl, R1 = PhCH2).

IT 39626-24-9

RL: RCT (Reactant) (benzylation of)

RN 39626-24-9 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-10-phenyl- (9CI) (CA INDEX NAME)

X

IT 52534-54-0P

RN 52534-54-0 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-10-phenyl-2-(phenylmethyl)- (9CI) (CA INDEX NAME)

L22 ANSWER 20 OF 24 CAPLUS COPYRIGHT 2002 ACS

AN 1973:29813 CAPLUS

DN 78:29813

TI Piperazinoindole derivatives

IN Okamoto, Tadashi; Arasaki, Seitetsu; Kobayashi, Tsuyoshi; Izumi, Takuhiro; Yamamoto, Hisao

PA Sumitomo Chemical Co., Ltd.

SO Jpn. Tokkyo Koho, 3 pp. CODEN: JAXXAD

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	JP 47041359	В4	19721019	JP 1968-23507	19680408

GI For diagram(s), see printed CA Issue.

AB A suspension of 1-cyanomethyl-2-carboethoxy-3-phenyl-5-chloroindole (4.95 g) in Et20 was added dropwise to Et20 contg. LiAlH4 at room temp. and the mixt. refluxed 2 hr to give 4.2 g 7-chloro-9-phenylpiperazino[1,2-a]indole (I). Similarly prepd. was 9-(o-fluorophenyl) deriv. with central nervous system depressant activity.

IT 39626-24-9P 39626-25-0P

RN 39626-24-9 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-1,2,3,4-tetrahydro-10-phenyl- (9CI) (CA INDEX NAME)



RN 39626-25-0 CAPLUS

CN Pyrazino[1,2-a]indole, 8-chloro-10-(2-fluorophenyl)-1,2,3,4-tetrahydro-(9CI) (CA INDEX NAME)

- L22 ANSWER 21 OF 24 CAPLUS COPYRIGHT 2002 ACS
- AN 1972:113169 CAPLUS
- DN 76:113169
- TI Synthesis of mitomycin analogs. I. Synthesis of 2-methylpiperazino[1,2-a]indole-6,9-diones
- AU Yamada, Yasuhiro; Takai, Haruki; Hatano, Kota; Sakakibara, Masayuki; Matsui, Masanao
- CS Dep. Agric. Chem., Univ. Tokyo, Tokyo, Japan
- SO Agr. Biol. Chem. (1972), 36(1), 106-11 CODEN: ABCHA6
- DT Journal
- LA English
- GI For diagram(s), see printed CA Issue.
- Alkylation of the indolecarboxylate (I) with Et bromoacetate and NaH in THF, followed by reaction with MeNH2 and heating, gave a dione (II). Redn. of II, followed by formylation, yielded the aldehyde (III). Nitration of III followed by redn. gave the aminoaldehyde (IV). Oxidn. of IV followed by redn. gave a hydroquinone, which on oxidn. gave the 2-methylpiperazino[1,2-a]-indole-6,9-dione (V, R1 = H, R2 = OMe), from which were prepd. V (R1 = CONH2, CONHMe; R2 = NH2, OMe). V (R1 = CONH2, R2 = OMe), e.g., was effective in vitro against, e.g., Staphylococcus aureus at min. inhibitory concn. 0.19 .mu.g/ml.
- IT 35727-28-7P 35727-29-8P 35727-30-1P 35727-31-2P
 - RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
- RN 35727-28-7 CAPLUS
- CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methoxy-2-methyl- (9CI) (CA INDEX NAME)

- RN 35727-29-8 CAPLUS
- CN Pyrazino[1,2-a]indole-10-carboxaldehyde, 1,2,3,4-tetrahydro-8-methoxy-2-methyl- (9CI) (CA INDEX NAME)

- RN 35727-30-1 CAPLUS
- CN Pyrazino[1,2-a]indole-10-carboxaldehyde, 1,2,3,4-tetrahydro-8-methoxy-2-methyl-9-nitro- (9CI) (CA INDEX NAME)

- RN 35727-31-2 CAPLUS
- CN Pyrazino[1,2-a]indole-10-carboxaldehyde, 9-amino-1,2,3,4-tetrahydro-8-

methoxy-2-methyl- (9CI) (CA INDEX NAME)

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L22 ANSWER 22 OF 24 CAPLUS COPYRIGHT 2002 ACS

AN 1969:87750 CAPLUS

DN 70:87750

TI Synthesis of pyrazino(1,2-a)indoles

AU Shvedov, V. I.; Alekseev, V. V.; Altukhova, L. B.; Grinev, A. N.

CS Vses. Nauch.-Issled. Khim.-Farm. Inst. im. Ordzhonikidze, Moscow, USSR

SO Khim.-Farm. Zh. (1968), 2(12), 3-7

CODEN: KHFZAN

DT Journal

LA Russian

GI For diagram(s), see printed CA Issue.

The title compds. (I) were prepd. as follows: to a suspension of 0.1 mole AB deriv. of 2-aroyl-3-methylindole (II) in 60 ml. abs. dioxane was added an alc. soln. of 0.1 g.-atom Na, the solvents distd. and to the residue was added with stirring a soln. of 0.1 mole BrCH2CH(OBu)2 in 100 ml. dry The mixt. was refluxed 1 hr., cooled, poured into H2O, extd. with C6H6, the ext. was dried by azeotropic distn. and the solvent distd. in vacuo. The residue was dissolved in 300 ml. AcOH, 0.3 mole AcONH4 was added, the mixt. refluxed 1 hr., the AcOH distd. in vacuo, the residue poured into H2O and alkalized to give the following I (R, R1, % yield, and m.p. given): H, H, 63, 132-3.degree.; Me, H, 65, 140-1.degree.; H, Me, 61.5, 145-6.degree.; H, MeO, 55, 150-1.degree.; MeO, H, 74, 256-7.degree. (decompn.); Cl, Cl, 68, 203-4.degree.; Me, MeO, 51.2, 162-3.degree.. To a boiling soln. of 0.02 mole I in 200 ml. abs. alc. was added every 5-10 min. Na to a total of 20.7 g., the mixt. was refluxed with stirring 15-20 min., dild. (H2O), the alc. distd. in vacuo, the residue sepd. and dried to give the following III (R, R1, % yield, and m.p. given): H, H, 98.4, 135-6.degree.; Me, H, 93, 115-16.degree.; MeO, H, 94, 145-6.degree.. To a suspension of 2.5 g. 2-p-toluoyl-3-methylindole in 10 ml. abs. dioxane was added an alc. soln. of 0.23 g. Na, the solvents distd. in a Wood's alloy bath at 120.degree. and then in vacuo. To the residue was added 1.5 g. C1(CH2)2NEt2 and 1 ml. HCONMe2, the mixt. heated 1 hr. at 130-40.degree., treated with H2O, extd. with C6H6 and worked up to yield 73% 1-[.beta.-(diethylamino)ethyl]-2-p-toluoyl-3-methylindole-HCl), m. 223-4.degree. (dioxane). Similarly, from 7.89 g. 2-p-toluoy1-3,5dimethylindole, 15 ml. abs. dioxane, 0.69 g. Na and 3.8 g. .gamma.-(dimethylamino)propyl chloride resulted 83.5% 1-[.gamma.-(dimethylamino)-propyl]-2-p-toluoyl-3,5-dimethylindole-HCl, m. 126-7.degree. (C6H6-petroleum ether). To a soln. of 0.01 mole II in 10 ml. abs. dioxane was added 0.011 mole CH2(NEt2)2, the soln. heated 2.5 hrs. on a water bath, distd. in vacuo and worked up to give the following IV (R, R1, % yield and m.p. given): Me, H, 70, 73-4.degree.; H, MeO, 85.2, 90-90.5.degree.; Me, Me, 87, 76-7.degree..

IT 21689-24-7P 21689-26-9P

RN 21689-24-7 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8,10-dimethyl-1-phenyl- (8CI) (CA INDEX NAME)

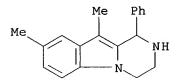
RN 21689-26-9 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methoxy-10-methyl-1-phenyl-(8CI) (CA INDEX NAME)

- ANSWER 23 OF 24 CAPLUS COPYRIGHT 2002 ACS L22
- 1969:57834 CAPLUS ΑN
- 70:57834 DN
- 1-Aryl-10-alkyl-1,2,3,4-tetrahydropyrazino[1,2-a]indoles ΤI
- Shvedov, V. I.; Altukhova, L. B.; Grinev, A. N.; Alekseev, V. V. ΙN
- Ordzhonikidze, S., All-Union Scientific-Research Chemical-Pharmaceutical PA Institute
- SO U.S.S.R.
 - From: Izobret., Prom. Obraztsy, Tovarnye Znaki 1968, 45(29), 23. CODEN: URXXAF
- DT Patent
- Russian LА
- FAN.CNT 1

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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
		-			
	att 226610		10600016	CII	10670720

- PΙ SU 226619
- 19680916 AB The title compds. are prepd. by subjecting 1-aryl-10-alkylpyrazino[1,2a]indoles or their hydrochlorides to redn. with Na in EtOH at the b.p. of
- the reaction mixt. IT 21689-24-7P 21689-26-9P
 - RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)
- 21689-24-7 CAPLUS RN
- Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8,10-dimethyl-1-phenyl- (8CI) CN (CA INDEX NAME)





- RN 21689-26-9 CAPLUS
- Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methoxy-10-methyl-1-phenyl-CN (8CI) (CA INDEX NAME)



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L22 ANSWER 24 OF 24 CAPLUS COPYRIGHT 2002 ACS
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1968:21956 CAPLUS AN

68:21956 DN

Substituted 1,2,3,4-tetrahydropyrazino[1,2a]indoles TI

Freed, Meier E. IN

American Home Products Corp. PA

U.S., 7 pp. SO CODEN: USXXAM

DTPatent

LΑ English

FAN.CNT 1

US 3317524

AIND DATE APPLICATION NO. DATE

19670502 19650204 PΙ US 3317524 For diagram(s), see printed CA Issue. GΙ The compds. I, II, and III, where R is di(lower alkyl)amino(lower alkyl), AΒ H, morpholino(lower alkyl), lower alkyl benzyl, piperidino(lower alkyl), cyclohexyl, or di(lower alkoxy)phenethyl, R1 is H or lower alkyl, R2 is H, benzyloxy, phenoxy, lower alkoxy, or fluorine, and X is O or two H are described as well as their addn. salts. For example, a mixt. of 25 g. diethyl 2-carboxyindole-1-acetate (IV) and 64.4 g. dimethylaminoethylamine was refluxed 26 hrs. After cooling, the mixt. solidified and was dild. with 500 cc. petroleum ether to give 27 g. N', N'-bis (dimethylaminoethyl)-2carbamoylindole-1-acetamide (V) m. 141-3.degree. (Me2CO-petroleum ether). Then, 5 g. V was heated at 140-50 degree. and 200 mm. Some dimethylaminoethylamine was collected and the pot temp. raised slowly to 200.degree. and kept there for 2 hrs. The distillate amounted to 0.82 g. (67%). The residue was cooled to room temp., dissolved in 50 cc. boiling Me2CO, treated with Norite A and filtered hot. The filtrate was concd. to 30 cc., petroleum ether added to turbidity, and cooled to give 35.3% 2-dimethylaminoethyl-1,3-dioxo-1,2,3,4-tetrahydropyrazino[1,2a]indole (VI) m. 165-70.degree. (heptane-acetone); HCl salt m. 268-9.degree. (decompn.) (EtOH-Et2O). Also, 15.1 g. IV and 5.63. g, N,N'-dimethylaminopropylamine in 75 cc. p-cymene was heated to 175-80.degree. and 3.2 cc. EtOH collected. The reaction temp. was increased to 200.degree. and kept there until pur-p-cymene distd. The total time of heating was 28 hrs. The reaction mass was cooled to give 52% 2-dimethyl-aminopropyl-1,3-dioxo-1,2,3,4-tetrahydropyrazino[1,2a]indole (VII) m. 159-62.degree. (toluene-petroleum ether); HCl salt m. 258.5-60.degree. (MeOH-Et2O). Similarly prepd. were 65% 2-morpholinoethyl-1,3-dioxo-1,2,3,4tetrahydropyrazino[1,2a]indole (VIII) m. 221-2.degree.; HCl salt m. 288-90.degree. (MeOH-Et2O); 61% 2-(2-piperidinoethyl)-1,3-dioxo-1,2,3,4tetrahydropyrazino[1,2a]indole (IX), m. 201-2.degree., HCl salt m. 290-1.degree. (Me2CO-iso-PrOH). A soln. of 20 g. IV and 7.5 g. cyclohexylamine in 50 cc. diphenyl ether was heated to 200.degree. 24 hrs. under a stream of N. The mixt. was cooled to 35.degree. and washed with petroleum ether to give 78% N-cyclohexyl-2-ethoxycarbonylindole-1acetamide (X), m. 171-4.degree.. Also prepd. were 2-cyclohexyl-1,3-dioxo-1,2,3,4-tetrahydropyrazino[1,2a]indole (XI), m. 267-8.degree.; 70% N-methyl-2-N-methylcarbamoylindole-1-acetamide (XII) m. 248-9.degree.; 33% 2-methyl-1,3-dioxo-1,2,3,4-tetrahydropyrazino[1,2a]indole (XIII) m. 230-9.degree. (decompn.)-Then, 3 g. of a suspension of LiAlH4 in 75 cc. tetrahydrofuran was prepd. and to this well stirred suspension, a soln. of 7.4 g. VI in 200 cc. tetrahydrofuran was added. The reaction mixt. was refluxed and stirred 24 hrs. After cooling, the mixt. was decompd. with 10 cc. H2O, the inorg. material filtered off, washed with tetrahydrofuran contg. a small amt. of iso-PrOH, and the filtrate concd. in vacuo to yield 5 g. 79.5% of crude 2-(dimethylaminoethyl)-1,2,3,4tetrahydropyrazino[1,2a]indole, di-HCl salt m. 260-2.degree.. Similarly prepd. was 71.2% 2-(3-dimethylaminopropyl)-1,2,3,4tetrahydropyrazino[1,2a]indole, b0.7 156-60.degree., HCl salt m. 272-4.degree. (MeOH-Me2CO). NH3 was passed into 200 cc. cold MeOH until the vol. increased by 30 cc. This soln. was used to treat 20 g. IV at

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room temp. for 1 week in a pressure bottle. The ppt. was filtered off,
washed, and dried to give 79.5% 2-carbamoylindole-1-acetamide m.
250-50.5.degree.. Similarly, MeNH2 was passed into 50 cc. MeOH until the
vol. reached 125 cc. This soln. was used to treat 5 g.
1-carbethoxymethyl-2-carbethoxy-5-methoxyindole (XIV) at room temp. 6
      The ppt. was filtered off, washed, and dried to give 75.2%
N-methyl-2-methylcarbamoyl-5-methoxyindole-1-acetamide (XV) m.
251.5-2.0.degree.. Also prepd. was 85.5% N-(2-morpholinoethyl)-2-[(2-
morpholinoethyl)carbamoyl]indole-1-acetamide (XVI), m. 161.0-2.5.degree.
(MeCN) and 70.7% 2-dimethylaminoethylcarbamoyl-N-dimethylaminoethyl-5-
methoxyindole-1-acetamide m. 154-5.degree.; 67.2% N-cyclohexyl-2-
cyclohexylcarbamoylindole-1-acetamide, m. 268-71.5.degree.; 75.9%
N-(3-dimethylaminopropyl)-2-(3-dimethylaminopropylcarbamoyl)indole-1-
acetamide (XVII), m. 126.5-8.0.degree.; 81.3% 5-benzyloxy-N-methyl-2-
methylcarbamoylindole-1-acetamide (XVIII), m. 260-60.5.degree.; 40%
2-morpholinoethyl-1, 3-dioxo-1, 2, 3, 4-tetrahydro-8-
methoxypyrazino(1,2a)indole (XIX), m. 195-6.degree., HCl salt m.
260-1.degree.; 63.4% N-(3,4-dimethoxyphenethyl)-2-ethoxycarbonylindole-1-
acetamide m. 138-9.degree. (Me2CO); 45.8% 2-[2-(3,4-dimethoxyphenyl)ethyl]-
1,3-dioxo-1,2,3,4-tetrahydropyrazino[1,2a]indole (XX) m. 188-90.degree.;
86.9% 2-methyl-1,3-dioxo-1,2,3,4-tetrahydropyrazino[1,2a]indole, m.
238-45.degree.; 52.6% 2-benzyl-1,3-dioxo-1,2,3,4-
tetrahydropyrazino[1,2a]indole (XXI), m. 211.5-12.5.degree.; 22.7%
2-methyl-1,3-dioxo-1,2,3,4-tetrahydro-8-benzyloxypyrazino[1,2a]indole, m.
242-4.degree.; 74.1% 2-methyl-1,2,3,4-tetrahydropyrazino[1,2a]indole m.
130-3.degree., HCl salt m. 248-50.degree. (EtOH); 2-(3,4-
dimethoxyphenethyl)-1,2,3,4-tetrahydropyrazino[1,2a]indole m.
134-5.degree., fumarate salt m. 180-1.degree. (Me2CO); 50.7\%
2-cyclohexyl-1,2,3,4-tetrahydropyrazino[1,2a]indole m. 145-6.degree., HCl
salt m. 253-5.degree. (MeCN); 2-(morpholinoethyl)-1,2,3,4-
tetrahydropyrazino[1,2a]indole m. 106-7.degree.; 56.5%
2-(morpholinoethyl)-1,2,3,4-tetrahydro-8-methoxypyrazino[1,2a]indole m.
138-9.degree., fumarate salt m. 207-9.degree.; 66.6% 2-(2-piperidinoethyl)-
1,2,3,4-tetrahydropyrazino[1,2a]indole m. 81-3.degree., HCl salt m.
285-7.degree. (iso-PrOH); 79% 2-benzyl-1,2,3,4-
tetrahydropiperazino[1,2a]indole (XXII) m. 89-90.degree., HCl salt m.
227-30.degree.. A soln. of 3.8 g. XXII in 175 cc. MeOH was debenzylated
by shaking with 0.6 g. Pd-C and H. at 45 psi. and 50.degree.. After 4
hrs., the catalyst was removed, the filtrate concd. to 50 cc., cooled, and
the HCl salt pptd. by the addn. of 100 cc. Et20 to give 68.2%
1,2,3,4-tetrahydropyrazino[1,2a]indole m. 240-1.degree.. Also prepd. were
2-methyl-8-benzyloxy-1,2,3,4-tetrahydropyrazino[1,2a]indole m.
126.5-8.0.degree., HCl salt (hemihydrate) m. 218-20.degree.,
2-dimethylaminoethyl-1,3-dioxo-1,2,3,4-tetrahydro-8-
fluoropiperazino[1,2a]indole, and 2-dimethylaminoethyl-1,2,3,4-tetrahydro-
8-fluoropyrazino[1,2a]indole.
16360-26-2P 16360-31-9P 16360-32-0P
18637-51-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
   (prepn. of)
16360-26-2 CAPLUS
Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methoxy-2-(2-morpholinoethyl)-
, fumarate (1:2) (8CI) (CA INDEX NAME)
CM
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RN

CN

CMF

18637-51-9

C18 H25 N3 O2

$$\stackrel{\mathsf{MeO}}{\longleftarrow} \stackrel{\mathsf{N}}{\longleftarrow} \mathsf{CH}_2 - \mathsf{CH}_2 - \stackrel{\mathsf{N}}{\longleftarrow} \mathsf{O}$$

CRN 110-17-8 CMF C4 H4 O4 CDES 2:E

Double bond geometry as shown.

RN 16360-31-9 CAPLUS

CN Pyrazino[1,2-a]indole, 8-(benzyloxy)-1,2,3,4-tetrahydro-2-methyl- (8CI) (CA INDEX NAME)

$$Ph-CH_2-O$$
 N
 Me

RN 16360-32-0 CAPLUS

CN Pyrazino[1,2-a]indole, 8-(benzyloxy)-1,2,3,4-tetrahydro-2-methyl-, monohydrochloride (8CI) (CA INDEX NAME)

● HCl

RN 18637-51-9 CAPLUS

CN Pyrazino[1,2-a]indole, 1,2,3,4-tetrahydro-8-methoxy-2-(2-morpholinoethyl)-(8CI) (CA INDEX NAME)

MeO
$$N$$
 CH_2 CH_2 N O